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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,521	06/06/2000	Upendra V. Chaudhari	YOR9-2000-0093US1(8728-35	8243

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EXAMINER

REVAK, CHRISTOPHER A

ART UNIT PAPER NUMBER

2131

DATE MAILED: 08/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,521

Applicant(s)

CHAUDHARI ET AL.

Examiner

Christopher A. Revak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on June 6, 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date see attached.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

✓

DETAILED ACTION

Response to Arguments

1. Applicant's arguments directed to claims 1-22 rejected under 35 USC 103 over Kanevsky et al, Fritch et al, and French et al have been considered by the examiner and have been found to be persuasive. The rejection of claims 1-22 under prior art has been withdrawn.
2. The examiner is still maintaining the rejections of claims 1-22 as being rejected under 35 USC 112 first paragraph as failing to comply with the written description requirement. The applicant has directed the examiner to page 25, lines 7-10 of the applicant's specification as providing support for "if the confidence score meets a threshold value". The examiner respectfully disagrees with the applicant's assertion. This cited section only recites "if the new confidence score C falls below the predetermined threshold (step 206),...". Similarly to the pages 23, line 17 through page 24, line 12 and reference to Figure 2, the only recitation in regards to the comparison of the confidence score versus the threshold value is the determination if it "exceeds" or "does not exceed" the predetermined threshold. There is no explicit recitation of "confidence score meeting the threshold value", but rather if the confidence score is above or below the threshold value.
3. The applicant's remarks in regards to claims 23-28 have been considered, however it has been determined that the examiner that the arguments of claim limitations pertaining to claims 1 and 12 are not recited in claim 23 as per the applicant's

statement on page 11 of the applicant's response filed on May 16, 2005 as "patentable and non-obvious over said combination for similar reasons given above for claims 1 and 12". In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., user access to different levels of secured data during a dialog session based on a measure of confidence in the validity of an identity claims received from a user upon commencement of the dialog session, upon the occurrence of a predetermined event during the dialog session, a confidence score is computer to determine a current measure of confidence in the validity of the identity claim, and the level of secure data that may be accessed by the user during the dialog session will be changed, if necessary, according to the current measure of confidence in the validity of the identity claim) are not recited in the rejected claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The applicant has amended the claims to recite "if the confidence score meets a threshold value" as per independent claims 1 and 12. In regards to Figure 2, the confidence score is computed (item 205) and it is determined if the confidence score is above a predefined threshold (item 206) wherein it is additionally recited in the applicant's specification page 23, line 17 through page 24, line 12. There is no recitation of the confidence score "meeting" a threshold, rather the confidence score either "does not exceed" or "exceeds" the predetermined threshold as is recited in that particular section of the applicant's specification.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-11 and 23-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims currently recite of software alone and of itself. The method claim 1 only recites of software steps that is not tangibly embodied and the system claim 12 similarly recites of software steps as well wherein the applicant's specification on page 9, lines 4-16 recite that the method steps and the system can be implemented in software.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 23-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanevsky et al, U.S. Patent 5,897,616 in view of Fritch et al, U.S. Patent 6,105,132.

As per claim 23, Kanevsky et al discloses of an apparatus (system) for incremental access authentication (col. 3, lines 12-20 and col. 12, lines 38-41). An identity claim is received from a user wherein the first spoken utterances of the speaker are received and the first spoken utterances (dialog session) containing indicia of the speaker (col. 3, lines 23-25). A confidence score is computed by the score estimator (computation module) based on the identity claim using speech input from the user, wherein the confidence score is a measure of confidence in the validity of the identity claim (col. 3, lines 41-43 and col. 6, lines 39-42). Kanevsky et al discloses that the computation may occur for as many iterations (periodic basis) as desired (col. 6, lines 61-65). If the score matches or exceeds a threshold value, the user is provided access to secured data based on the computed confidence score (col. 3, lines 44-48 and as recited in the abstract). The central server (dialog manager) controls access to the database (col. 1, lines 23-29 and col. 7, lines 15-25). Kanevsky et al does not teach further comprising the steps of partitioning the secured data into a plurality of data

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classes and assigning a security level to each of the data classes that limits accessing the secured data. Fritch teaches further comprising the steps of partitioning the secured data into a plurality of classification levels (data classes)(col. 1, line 50) and assigning a security level to each of the data classes that limits accessing secured data (col. 6, lines 34-37). Therefore it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the teaching of Kanevsky et al with the teachings of Fritch et al to include further comprising the steps of partitioning the secured data into a plurality of data classes and assigning a security level to each of the data that limits access to the secured data with the motivation to provide a consistent access policy in a computer network as is disclosed by Fritch et al (col. 2, lines 28-29).

As per claim 24, Kanevsky et al is relied upon for a confidence score is computed based on the identity claim using speech input from the user, wherein the confidence score is a measure of confidence in the validity of the identity claim (col. 3, lines 41-43). The teachings of Kanevsky does not teach further comprising an access map for mapping each data class with the corresponding range of user access levels, wherein the access map is utilized by the dialog manager to provide access to data based on the last computed user access level. Fritch et al further discloses of an access map for mapping each data class with the corresponding user access levels, wherein the access map is utilized by the dialog manager to provide access to data based on the last computed user's access level (col. 8, lines 28-30). Therefore it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the combination of Kanevsky et al with the teachings of Fritch et al to include further

comprising an access map for mapping each data class with the corresponding range of user access levels, wherein the access map is utilized by the dialog manager to provide access to data based on the last computed user access level with the motivation to provide a consistent access policy in a computer network as suggested by Fritch et al (col. 2, lines 28-29).

As per claim 25, Kanevsky et al discloses of confidence score is computed based on the identity claim using speech input from the user, wherein the confidence score is a measure of confidence in the validity of the identity claim (col. 3, lines 41-43). If the score matches a threshold value, the user is provided access to secured data based on the computed confidence score (col. 3, lines 44-48 and as recited in the abstract). In providing access by matching of the confidence score, it is interpreted by the examiner that the confidence score is maintained as the system state since that is the parameter submitted by the user for authentication and validation (col. 3, lines 44-48).

10. Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanevsky et al, U.S. Patent 5,897,616 in view of Fritch et al, U.S. Patent 6,105,132 in further view of French et al, U.S. Patent 6,321,339.

As per claim 26, the teachings of Kanevsky et al are relied upon for comparison of a confidence score in regards to user's speech patterns. The combination of Kanevsky et al and Fritch et al fail to disclose of n the confidence score is based on a linear function of statistical models that characterize the score under a plurality of conditions. French et al teaches wherein the confidence score is based on a linear

function of statistical models that characterize the score under a plurality of conditions (i.e. additionally, the checks of preprocessing step 26 may include the use of a credit card application fraud model, or some other model which statistically analyzes response data. For example, the data supplied by the user may be modeled and graded for confidence level based upon empirical models supplied by third party vendors or available internally) (col. 11, lines 42-47). Therefore it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the teaching of Kanevsky with the teachings of French to include wherein the confidence score is based on a linear function of statistical models that characterize the score under a plurality of conditions with the motivation of enabling different levels of authentication to be performed based on the level of security desired, thus reducing costs and unnecessary use of system resources as suggested by French et al (col. 2, lines 62-65).

As per claim 27, Kanevsky teaches wherein the confidence score comprises one of (1) a first component for considering a single mode implementation and (2) the first component and a second component for considering a multi-modal implementation (i.e. it is further to be understood that $P(\text{acoustic data}|\text{speaker}_i)$ may be computed using some acoustic models for speakers that may be represented as Hidden Markov Models (HMM)) (col. 11, lines 15-17). The Examiner interprets a Hidden Markov Model representation as a single mode implementation.

As per claim 28, Kanevsky teaches wherein the confidence score comprises a mixing factor for weighting the first and second component in a multi-modal implementation (i.e. in another embodiment, one can interpret $P(\text{speaker}_i)$ as a

weighted factor and update a general speaker score using a known formula) (col. 11, lines 18-20). The Examiner interprets the $P(\text{speaker}_i)$ value to be equivalent to the confidence score.

Allowable Subject Matter

11. Claims 1-22 are allowed over the prior art of record, however claims 1-11 are rejected under both 35 USC 101 and 35 USC 112 1st paragraph and claims 12-22 remain rejected under 35 USC 112 1st paragraph.

12. The following is a statement of reasons for the indication of allowable subject matter:

As per claims 1 and 12, it was not found to be taught in the prior art of user access to different levels of secured data during a dialog session based on a measure of confidence in the validity of an identity claims received from a user upon commencement of the dialog session, upon the occurrence of a predetermined event during the dialog session, a confidence score is computer to determine a current measure of confidence in the validity of the identity claim, and the level of secure data that may be accessed by the user during the dialog session will be changed, if necessary, according to the current measure of confidence in the validity of the identity claim.

Conclusion


13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Honarvar et al, US 2003/0154406 discloses of comparing a profile to determine a confidence score for authentication purposes.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Revak whose telephone number is 571-272-3794. The examiner can normally be reached on Monday-Friday, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CR

July 31, 2005

Christopher Revak
AU 2131


7/31/05